Society Proceedings

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The President *pro tem.*, Dr. Joseph Fraenkel, in the Chair.

Two Cases of Bilateral Symmetrical Atrophy of the Thenar Eminence.—These were presented by Dr. I. Abrahamson. The first patient was a woman, sixty-two years old, whose family and personal history were negative. Her occupation was that of a housewife, which necessitated putting her hands in water a great deal, and she also assisted her daughter at needlework. Eight years ago she first began to experience numbness and paresthesia in both hands, with beginning atrophy of the thenar muscles, chiefly the flexor brevis pollicis. There were no trophic skin changes and no nerve tenderness. The atrophy was symmetrical in both hands.

The second patient was a woman, fifty-two years old, a native of Hungary. Her occupation was that of a housewife. The symptoms were similar to those in the first case, but the paresthesia was most annoying at night. There was marked symmetrical atrophy of both thenar eminences. The speaker said he regarded both of these cases as examples of acro-paresthesia with subsequent atrophy.

Dr. Charles L. Dana said the unusual feature of these cases was the symmetrical character of the atrophy affecting both hands. Not long ago, the speaker said, he saw a case of atrophy of the thenar eminence of one hand, with paresthesia and evidence of neuritic disturbance. In this instance the condition had been produced by the Vardon grip in playing golf. In another case the patient was an elevator boy, and the neurosis had been produced by pulling on the wire ropes of the elevator. While these occupation neuroses were not particularly rare, bilateral and symmetrical cases of this kind were extremely so.

A Discussion on the Classification of the Melancholias.—Dr. Charles L. Dana opened this discussion. He stated that the term melancholia indicated to the psychiatrist a combination of symptoms varying in groupings, duration and intensity, but beneath all a dominant condition of painful emotional depression. It might occur as a symptom in various organic and degenerative cerebral diseases, but it was recognized in particular as a manifestation of two functional states: first, that occurring at about the period of involution, or change of life, and later: second, that occurring in early and early middle-life. No one, the speaker thought, disputed the distinctive character of melancholia of the first type as it occurred in middle and late life. The "melancholia of involution" was a chronic and incurable disorder. It was a psychosis accompanied with anxious, worrying apprehension, and was often a natural evolution of the constitutional worrier. It was characterized by hypochondriacal and obsessive ideas, dysthesia and somatic delusions; by hallucinations, self-accusations, and at times by suicidal ideas and impulses. There was complete self-absorption, narrowing of consciousness, enfeebled attention and enfeebled power of concentrated or constructive thought. There was no clouding of consciousness nor retardation of thought nor dementia. It was an agitated, worrying hypochondriacal psychosis.

The melancholias which were seen, especially during early life, and were at least characteristic of that period, had not such a single, definite picture. That form which had been described as acute melancholia, however, was in its typical form a sharply defined condition, characterized by profound emotional depression, retardation and difficulty of thought, clouding of consciousness and other phenomena familiar enough to all. This form of melancholia, we were told by Kraepelin and his followers, was not really melancholia, but only the melancholic phase of manic-depressive insanity, and it was proposed to substitute this term for all or most of the functional melancholias not belonging to the melancholia of involution. Hence we would have but one real melancholia, the chronic form of later life.

Dr. Dana said he had been trying to fit this scheme to his experience, and for that purpose he had looked over the histories of over 400 cases occurring in his private practice. Of these, he had closely analyzed 130, which he had seen more recently and in many instances followed for a long time. From this analysis he had reached the conclusion that chronic melancholia, under the classification of Kraepelin, was indeed a special disease, but not in all cases one of the involutional period. In its milder types especially it seemed to him that we saw pictures of it that would be called anxiety psychosis, or depressive neurasthenia, and it was not unreasonable to suppose that in psychopathic individuals, or those with a special hereditary tendency, the nervous system should be subject to early chronic melancholia. He thought it possible that this same worrying psychosis might appear at the period of adolescence, when the disease was less intense, the somatic and sensory disturbances less severe, but the mental state essentially the same. The sharply defined delusional melancholia of early life, with great activity of thought, clearness of memory, intense self-accusation and powerful suicidal impulses belonged more to this type than any other. The association and alternation of mania with early, simple recurrent melancholia was an established fact, and the term manic-depressive insanity fitted this group of cases admirably, but in the speaker's list of 400 cases of melancholia, mostly not asylum types, there was a history of mania in only 8 per cent. It seemed rather forcing the issue, therefore, to use the term manic-depressive insanity for these patients, who never had any mania. He was inclined to regard the melancholias of early life as simple melancholias of the involution type—or preinvolutional, if that seemed a better form. He would at least consciously associate their disorder to that form seen more typically and severely later in life. He would say that there were a great number of simple, functional, often recurrent melancholias that belonged to the manic-depressive type by reason of the neurasthenic and apathetic condition, the absolute loss of interest in life, and psycho-motor sluggishness and enfeeblement, but he saw no reason to use the term manic-depressive insanity here. He would use the term manic-depressive insanity only when there was evidence of it.

Dr. M. Allen Starr said that Dr. Dana's remarks regarding melancholia would appeal to every neurologist and practitioner who did not constantly come in contact with the severer types of insanity. Those who were doing asylum work, however, might meet with considerable difficulty in grouping certain of the cases. Perhaps 5 per cent. of the cases in the average asylum could not be positively assigned to any definite group. The speaker said he was glad to hear Dr. Dana make a distinct protest against the term manic-depressive insanity. He had never been in sympathy with that term, for the simple reason that it did not coincide with our clinical experience in this country. He had carefully reviewed the records of about 280 cases that he had classified

as melancholia, and he saw no reason to protest in any way against the classification that was proposed by Krafft-Ebing years ago, namely, simple melancholia, melancholia with delusions, and melancholia with delusions and agitation. These three types embraced distinct varieties of the disease. The speaker said he also agreed with Dr. Dana that the type that rose to the stage of mania was extremely rare, in his own experience, probably not exceeding 5 per cent. of the total number of cases observed. He thought it would be very unfortunate, therefore, to label these patients with a term like manic-depressive insanity, in spite of the fact that in 95 per cent. of the cases there was no mania whatever. Dr. Starr said that a careful study of his cases of mild melancholia had impressed him with the idea that the condition was a purely toxic neurosis. The symptoms were most severe in the early morning, and passed off largely during the day. Sixty per cent. of his cases never passed beyond the simple melancholic type, which was not the type met with in the insane asylums. The cases he had in mind were entirely conscious of their surroundings and of their own condition; they were in extreme dread of insanity, and they were not suitable subjects for an insane asylum, and to incarcerate them in such an institution would be an outrage. About 35 per cent. of his cases corresponded to the delusional type, and required watching to prevent suicide.

Dr. Starr said he would like to impress upon the Society the existence of a true toxic melancholia. In fully 60 per cent. of his mild cases he believed that he had to deal with a purely toxic neurosis, and if we could eliminate the poison, we could cure the patient. He had noted that any undercurrent disease, such as grippe, pneumonia, or malaria, that produced a decided change in the chemistry and nutrition of the body, arrested the symptoms in these mild cases of melancholia, and he had produced the same effect by the use of thyroid extract. Under the administration of this agent the symptoms of melancholia would be immediately relieved and remain absent until the temperature again dropped to normal.

Dr. Adolph Meyer said that his experience with the melancholias had naturally been of a different sort from that of Drs. Dana and Starr, having been largely confined to patients who were already committed to the asylum. His observations had led him to conclusions which did not essentially differ from those of Dr. Dana, although for practical reasons he would rather favor a different classification. On the whole, he was desirous of eliminating the term melancholia, which implied a knowledge of something that we did not possess, and which had been employed in different specific ways by different writers. If, instead of melancholia, we applied the term depression to the whole class, it would designate in an unassuming way exactly what was meant by the common use of the term melancholia; and nobody would doubt that for medical purposes the term would have to be amplified so as to denote the kind of depression. In the large group of depressions we would naturally distinguish our cases according to etiology, the symptom-complex, the course of the disease and the results. A distinction into acute and chronic forms is not consistent with experience. Dr. Hoch finds that all attacks tend to become longer in advanced years. The distinction had best be made according to the intrinsic nature of the depression. From that point of view we might distinguish the pronounced types from the simple insufficiently differentiated depressions. Besides the manic-depressive depressions, the anxiety psychosis, the depressive deliria and depressive hallucinations, the depressive episodes of dementia præcox, the symtomatic depressions, non-differentiated depressions will occur; especially the differentiation of the dementia præcox type frequently causes difficulty, where stupor and catalepsy

supervene. The speaker said he was somewhat surprised that no reference had been made to the difficulties in determining the depressions of dementia præcox. The speaker took exception to Dr. Starr's statement that mania was but a rare event and only to be expected in the most agitated cases. He could not recall a single instance where a case of the pure agitated type developed mania, while on the other hand, the type that did not show the agitation, but a great deal of inhibition and subjective inadequacy, was the form that might develop mania.

Dr. Meyer said that he would rather hesitate to accept Dr. Starr's idea that the intermission in the symptoms of melancholia produced by febrile disturbances proved the toxic origin of those symptoms, because an intercurrent disease was apt to produce a change in the symptoms of almost any mental disorder. The shortness of the time for discussion did not permit the review of about 300 cases of depressions to be reported on another occasion.

Dr. Ralph L. Parsons said that some years ago he made out a classification of the insanities that was provisional only, because the facts upon which to construct a scientific classification did not exist then nor do they exist at the present time. Different types of insanity were often very closely identified, and during the same attack the patient might exhibit symptoms of mania, melancholia and dementia. Dr. Parsons then exhibited a table that he had devised, in which the melancholias were divided into many different types descriptive of their cause, such as adolescent, puerperal, etc.

Dr. Joseph Collins said that while some writers on mental diseases claimed that melancholia was a very uncommon disease, and much less frequently met with to-day than mania, others maintained that there was no such disease as melancholia, and that that which we called melancholia was a symptom of a diagnosticable condition, which, being the real disease process, should be entitled to the name. Dr. Collins said he was in sympathy with the latter writers, in so far as their position compelled them constantly to seek for the dependency of melancholia, but he was unwilling to accept their statement that there was no such disease as simple melancholia, i.e., melancholia which was not a constituent of other disease, physical or mental. The general practitioner was likewise loath to accept such statements, because they seemed to him to be at variance with his experience. The difficulty in discussing the subject was that the term melancholia was used by writers with great latitude and absence of specificity.

Melancholia, or mental depression, coupled with moral insufficiency, sadness and anguish, was of common occurrence. It was encountered in certain toxic states, such as alcoholism, and as the result of insufficient oxidation and deficient elimination. It was found associated with neurasthenia, hypochondria, paresis, general and cerebral arteriosclerosis, dementia præcox and mania, and also occuring without any of these associations. Every neurologist saw a great many cases which he diagnosticated as melancholia without being able to satisfy himself of the dependency of the melancholia, just as the general practitioner or consultant in internal medicine must often still make the diagnosis of indigestion without being able to satisfy himself that it was dependent upon any one or more of a number of disordered conditions that were sufficient to cause it. When the neurologist had the opportunity of observing these cases for a protracted time, he was enabled to classify them more specifically, and from an etiological standpoint more correctly. There was a tendency at the present time to put all cases of melancholia that could not be referred to organic disease and manic-depressive insanity under the head of "involution melancholia," i.e.,

melancholia associated with retrograde changes in the tissues, and occurring at a time of life when such changes of the tissues set in physiologically, and therefore are directly or indirectly dependent upon them. It was the writer's experience that considerably less than one-half of all the cases diagnosticated as melancholia, using the term in the specific sense mentioned above, could be placed in this category.

Dr. Collins then cited in detail a number of cases of melancholia which illustrated the great variation in the onset, delineation and course of the disease, and the difficulties that beset the attempt to place them in one or two groups. The neurologist often had much difficulty in deciding whether such a case should be called neurasthenia, hypochrondria or melancholy depression. Some of these patients eventually became insane (using the term in its legal sense), but he believed that the vast majority of them did not, nor was their mental capacity so interfered with that they had to abandon their business. Whether or not there were such a disease as acute melancholia was of the greater importance, because it carried with it the matter of prognosis. The outlook in manic-depressive insanity and involution melancholia had been fairly well determined, and the diagnosis of either one carried with it a serious prognosis.

Dr. Collins said he agreed entirely with Dr. Dana, excepting in his statement that there were two types of melancholia with three names for them. There were three types of melancholia, namely, the acute, the manic-depressive and involution melancholia. So far as the manic-depressive type was concerned, the speaker said he knew of no disease with more clearly drawn clinical features, none which could be more readily recognized, and none in which the etiology, course and eventuation were more certain. He saw no more reason for eliminating manic-depressive insanity than he did for eliminating appendicitis, streptococcus meningitis or other well recognized conditions.

As to the relation of toxic conditions to melancholia, Dr. Collins said he had never seen a case of melancholia that was relieved in any way by medication directed towards the supposed toxic agent, and the very fact that the symptoms became intermittent or were held in abeyance by the administration of other poisons, or by an intercurrent attack of grippe or pneumonia, would seem to militate against the contention that they were of toxic origin. Otherwise it would be a strong argument in favor of the doctrine of *similia similibus curantur*.

Dr. B. Sachs said that in a discussion of the classification of the melancholias there was danger of going to extremes in both directions, and making the classification either too wide or too narrow. Under the influence of Krafft-Ebing and the older French and German writers the term melancholia was much abused. It should be restricted, he thought, to those cases in which there was a slowing up of all mental processes, associated, perhaps, with some self-accusation. This formed a very definite clinical picture, and he saw no reason why it should be eliminated. On the other hand, there were various forms of depression which could be differentiated from melancholia. In private practice he frequently made the diagnosis of simple depression; this he regarded as a transitory condition, and it had never occurred to him to look upon it as true melancholia, which was a true and very often a serious psychosis. To his mind, pure melancholia had always represented a typical and grave disorder. The question arose whether to discard the older classification entirely in favor of the more recent one of Kraepelin, with its comprehensive term of manic-depressive insanity, which included all types of melancholia, circular insanity, and what not. In picturing manic-depressive insanity, Kraepelin had shown great genius and insight, and Dr. Sachs said he indorsed that writer's wisdom in putting clearly before the medical public the existence of a large group of cases that were characterized by typical

symptoms. There could be no doubt about the existence of such a group, but he could not agree with the dictum of Kraepelin that all cases of melancholia are merely one stage of manic-depressive insanity.

Dr. A. R. Diefendorf, of Middletown, Conn., said he was surprised by the difference of opinion regarding the melancholias as expressed by the neurologists and those who saw these cases in asylums, as it was certain that all the cases that eventually came to the hospitals for the insane had passed through the hands of the practitioner and specialist. As regards simple melancholia, there were several groups of those cases. There was one group in which the characteristic symptoms were mental sluggishness, a feeling of insufficiency or inadequacy, a lack of energy, an increased sense of fatigue, a slowing of the train of thought, difficulty of comprehension, perhaps a few indefinite hallucinations and possibly a few delusions. The emotional attitude of these patients was one of simple despondency. They took an abnormal view of life. There was another type of simple melancholia that occurred early in the course of senility.

Dr. Edward D. Fisher said he would certainly agree with the view that we had to deal with a simple melancholia which was distinct from that described by Kraepelin. Kraepelin's cases were those of later life, and differed from the melancholia which he found in manic-depressive conditions. There was in his so-called melancholia not so much absolute retardation of thought as in the class of cases of the manic-depressive type. Dr. Fisher said he had seen a number of cases occurring in young persons, perhaps about the age of twenty-five, where they simply presented a psychosis, which was described as melancholia, and where the patients made a complete recovery within three to six months. He could recall one case in which at least fifteen years had elapsed since such an attack, and there had been no signs of a recurrence. The speaker said he was certainly in favor of retaining the term simple melancholia, and he also believed decidedly in the manic-depressive type.

Dr. L. Pierce Clark said he was not in favor of the term involution melancholia. He thought the psychosis of the climacteric or the melancholia of involution should more properly be called an anxiety psychosis, because that seemed to be the great predominating factor. In the differential diagnosis of manic-depressive insanity and involution melancholia the one essential feature was the retardation.

Dr. A. J. Rosanoff said it was well known that depression was the most common symptom encountered among the insane. He thought that all forms of mental disease, without a single exception, might present this symptom. This fact perhaps accounted for the statement of the older writers with regard to the frequent occurrence of "melancholia." At the institution with which he was connected, and probably also at all other asylums, a considerable proportion of the depressed cases admitted had to be set aside as unclassified. The majority of these cases ultimately developed one or the other of the typical syndromes, but a small group still remained which could not be classified among the well-known psychoses. This group contained about five per cent. of the total number of depressed cases admitted to the asylum. This was merely a rough estimate, but the speaker said he felt assured that it could not be far from the actual figures. It had been proposed to designate these cases as "simple melancholia." It seemed to him that any generic term would be entirely inapplicable to an extremely heterogenous group of psychoses, such as these.

With regard to manic-depresssive insanity, Dr. Rosanoff said it must be remembered that many cases presented during their whole life nothing but a number of attacks of simple depression. The diagnosis was made not at all from the occurrence of manic and depressive episodes in the same individual, but chiefly from the exceedingly well-defined symptomatology. He thought that Kraepelin had selected this term for the disease for the

purpose of indicating simply that its manifestations might be either depression with retardation and dearth of ideas, or elation with restlessness and flight of ideas, or a mixture of these phenomena, but not that each individual case must present all the possible manic-depressive episodes. Some of the depressed cases of this disease were so mild that the patients were not committed, and were even able to continue their occupation; but even those cases presented the characteristic features of the disease, and one experienced in making the diagnosis of manic-depressive insanity would not have much difficulty in recognizing them.

The occurrence of melancholia with anxiety and agitation at a comparatively early age had been referred to. The resemblance between these cases and those of involution melancholia of Kraepelin was only a superficial one. The speaker thought that probably almost all of them belonged to the dementia præcox group. On analysis their depression was found to be extremely shallow, it being at times but a simulated depression. Moreover, they presented mannerisms, stereotypy, neologisms, negativisms, emotional deterioration and delusions of an exceedingly absurd or even impossible nature, contrasting with perfect orientation, intact memory for recent and remote occurrences, and a surprising alertness with regard to their surroundings.

Dr. Dana, in closing, said that on the whole, the position he had assumed in his paper had been largely sustained by those who had taken part in the discussion. He still insisted that we have two forms of melancholia, with a third that belongs more or less to one or the other. The two forms are the involution type and the manic-depressive. Outside of these there are many cases of simple depression, which he had learned from experience would never be anything else but simple depression, but which, if closely analyzed, would be found to belong to either the manic-depressive or the involution type. In his paper, the speaker said, he had confined himself to the functional types of melancholia, disregarding the group of simple symptomatic melancholias occurring in the course of organic brain disease. The classification devised by Dr. Parsons was very practical and interesting, especially for those working in institutions, but, of course, it was not intended as a text-book guide of melancholia.

A Case of Bilateral Facial Hemiatrophy.—Presented by Dr. Edward D. Fisher. The patient was a young girl who, about two years ago, had an attack of persistent vomiting. Following this, progressive wasting of both sides of the face was noticed. There seemed to be no atrophy of the bone, but absolute loss of subcutaneous tissue. There were no sensory disturbances; no electrical changes.

Dr. B. Sachs said the case was unique, so far as his experience and reading went. It differed from the ordinary facial hemiatrophy in the wide distribution of the lesion, and the absolute disappearance of the subcutaneous fat without involvement of any of the other tissues. It was certainly not a scleroderma. The girl's body was apparently well nourished.

The Nature of the Nerve Lesion in Brachial Birth Palsy (Erb's Type).—Dr. Thomas P. Prout read a paper on this subject. He stated that in order to properly appreciate the pathology underlying brachial birth palsy (Erb's type), the etiology of the over-stretching process in its production must be borne in mind, in sharp contradistinction to the oft-repeated statements in the text-books that it is produced by direct compression of the nerve trunks between the clavicle and the transverse processes of the vertebræ, or the clavicle and first rib. It is possible that the Erb syndrome may be produced in this manner, but when it occurs the behavior of the case is very different from that observed in the cases we are here considering. Pressure lesions in nerve bundles, if uncomplicated, recover rapidly, whereas in these cases we have some condition of a permanent character in the nerve bundle which prevents complete recovery. The cases

in which the only etiological factor is pressure, recover within a year or eighteen months. The cases we are here considering reach a certain stage of recovery, and then present a permanent palsy of greater or less extent. What pathological lesion renders these cases permanent?

The behavior of the perineural sheath (a dense, connective tissue structure surrounding and supporting the nerve strands) during the process of repair is of great importance. Since this structure supports the nerve strands its rupture occurs as a primary factor in the cases we are here considering. In fact, in any nerve lesion produced by an over-stretching process, this supporting sheath must first give way. In these cases it is torn asunder and the arterioles belonging to it and supported by it are ruptured. A hemorrhage into the substance of the nerve and its sheath results. These facts have not heretofore been recognized in the literature of this subject. They are of the greatest importance, since they determine the ultimate extent and final character of the lesion. Were it not for the obstructive features of the repair process in the nerve sheath, we might expect a more or less complete recovery in the vast majority of instances without operative excision and suture.

Photomicrographs were shown of a case in point. (In all four cases have been examined to date.) In this instance only the fifth and sixth cervical roots were involved at the usual seat of the lesion, their junction to form the plexus. The perineural sheath presented many old, dense pigment deposits, the site of old hemorrhages. In some portions the perineural sheath was buckled inward upon the nerve fibers, strangulating them and preventing their regeneration. Evidences of strangulation were not only present at these points but also in the nerve fibers underlying the pigment deposits. There was obliteration of the myelin sheath immediately beneath these areas, and fragmentation of the myelin sheath above and below. In the more severe cases the strands of the plexus involved came to an abrupt termination in a mass representing an old organized hemorrhage. In these instances there was a severing of the nerve fibers, which were often thrown into folds for some distance from the site of the primary lesion.

The importance of these lesions cannot be overestimated. Repair of the nerve sheath takes place before regeneration of the nerve fiber, and if this has buckled inward upon the nerve bundles following the relief of tension, the nerve fibers are inevitably going to be strangulated and their regeneration prevented. The same applies to the organization of an old hemorrhage impinging upon nerve strands. The nerve fiber may or may not be ruptured. However this may be, the pressure of the old hemorrhage and the cicatrix in the perineural sheath are sufficient not only to prevent regeneration in the severed nerve fibers, but to determine a neuritis in those not severed, and prevent their regeneration.

The sequence of events in the production of the obstetrical birth palsies may be summarized as follows: The lesions are (1) immediate and (2) remote. The immediate lesion consists in a tearing of the perineural sheath surrounding and supporting the nerve trunk, and the incidental rupture of the blood-vessels belonging to it. Hemorrhage occurs into and beneath the perineural sheath. There is, furthermore, a severance of the nerve strands, more or less complete, depending on the severity of the case.

The remote lesion is brought about, and its extent determined by (a) the healing of the perineural sheath; (b) the organization of the blood-clot; (c) the ultimate contraction of the cicatrix upon the nerve strands, which not only prevent their regeneration but determine a pressure neuritis in those not severed upon which it may chance to impinge. This factor is of very great clinical importance. An infant in whom this accident occurs, who remains more or less continuously peevish and fretful for some time afterwards, and in whom the handling of the extremity greatly

increases its pain and irritability, is suffering from a traumatic neuritis, due to pressure upon certain nerve strands of the organizing blood-clot and the contraction of the cicatrix in the perineural sheath. Cases that do not present this symptom have been produced by simple trauma to the nerve, without rupture of the perineural sheath, and will recover spontaneously, while in those cases presenting this sign of a neuritis a considerable palsy will follow, depending on the severity of the lesion. These facts have an important bearing on treatment.

Dr. Sachs said that a certain number of brachial birth palsies of the Erb type were due to pressure and nothing else. A large proportion of the cases were absolutely painless; there was simply numbness, but no pain, and no symptoms such as we would associate with a laceration of the nerve. The speaker thought that Dr, Prout took an extreme position in claiming that some of these cases, at least, were not due to pressure, and that laceration of the nerve was necessarily the cause of this type of birth palsy. There was no doubt that in some of the violent cases the nerve strands were torn, but in the large proportion of cases he thought the symptoms were the direct result of pressure and hemorrhage.

Dr. L. Pierce Clark thought from the data which he and Dr. Prout had at their command that in the vast majority of instances the palsy was the result of stretching and laceration and not of pressure. This was clearly demonstrated in the operative cases. In these the recovery of the patients was uneventful, and the progress very satisfactory. The pathological work was particularly interesting, in so far as nothing like it had ever been done in connection with this type of palsy.

Dr. William M. Leszynsky said he understood from the paper that in those cases that did not undergo spontaneous recovery, surgical interference was necessary. That being the case, he assumed that Dr. Prout concluded that in all cases that recovered without operation spontaneous regeneration of the nerve had taken place, and that those cases, therefore, had no lesion of the kind he described. The question therefore arose, when should we operate on these cases, and how could we know whether spontaneous regeneration would take place or not?

Dr. Prout, in closing, said that if spontaneous regeneration occurred it was not necessary to operate. This could be fairly definitely known within a year or eighteen months after the birth of the child. The cases that did not recover spontaneously presented exactly the lesions he had demonstrated, which represented a condition in the perineural sheath of the nerve which prevented spontaneous recovery. It was well known that many cases recovered spontaneously, but those that did not were due to stretching and not to pressure. Those due to the latter cause would in all probability recover spontaneously. If they did not, however, we were not dealing with a pure pressure palsy.